

Air Contaminant Name	CAS Number <sup>1</sup>	Reporting Level (lbs/yr)
Methyl demeton	8022-00-2	179
4,4'-Methylene bis(2-chloroaniline) (MOCA)	101-14-4	125
Methylene bis(4-cyclohexylisocyanate)	5124-30-1	19
Methylene bisphenyl isocyanate (MDI)	101-68-8	44
<sup>3</sup> Methylene chloride	75-09-2	6,000
4,4'-Methylenedianiline (and dihydrochloride)	101-77-9 <sup>2</sup>	125
Methyl ethyl ketone (2-Butanone) (MEK)	78-93-3	6,000
Methyl ethyl ketone peroxide	1338-23-4	336
Methyl formate	107-31-3	6,000
Methyl hydrazine	60-34-4	336
Methyl iodide	74-88-4	125
Methyl isoamyl ketone	110-12-3	6,000
Methyl isobutyl carbinol	108-11-2	6,000
Methyl isobutyl ketone (MIBK)	108-10-1	6,000
Methyl isocyanate	624-83-9	18
Methyl methacrylate	80-62-6	6,000
Methyl parathion	298-00-0	73
$\alpha$ -Methyl styrene	98-83-9	6,000
Methyl tert-butyl ether (MTBE)	1634-04-4	6,000
Mevinphos (Phosdrin)	7786-34-7	37
Molybdenum, as Mo, soluble compounds	7439-98-7 <sup>2</sup>	1,829
Monocrotophos	6923-22-4	91
Morpholine	110-91-8	6,000
Mustard gas	505-60-2	12
Naled	300-76-5	1,093
Naphthalene	91-20-3	6,000
2-Naphthylamine	91-59-8	12
Nickel compounds other than nickel subsulfide, as Ni	7440-02-0 <sup>2</sup>	125
Nickel subsulfide	12035-72-2	12
Nitric acid	7697-37-2	1,829
p-Nitroaniline	100-01-6	1,093
Nitrobenzene	98-95-3	1,829
4-Nitrobiphenyl	92-93-3	6,000
p-Nitrochlorobenzene	100-00-5	233
Nitroethane	79-24-3	6,000
Nitrogen mustards (2,2'-Dichloro-N-methyldiethylamine)	51-75-2	12
<sup>3</sup> Nitrogen oxides	<sup>2</sup>	10,000
Nitromethane	75-52-5	6,000
4-Nitrophenol	100-02-7	6,000
2-Nitropropane	79-46-9	125
N-Nitrosodi-n-butylamine	924-16-3	12
N-Nitrosodiethanolamine	1116-54-7	12
N-Nitrosodiethylamine	55-18-5	12
N-Nitrosodimethylamine	62-75-9	12
p-Nitrosodiphenylamine	156-10-5	12
N-Nitrosodi-n-propylamine	621-64-7	12
N-Nitroso-N-ethylurea	759-73-9	12
N-Nitroso-N-methylurea	684-93-5	12
N-Nitrosomethylvinylamine	4549-40-0	12
N-Nitrosomorpholine	59-89-2	12
N'-Nitrosornicotine	16543-55-8	12
N-Nitrosopiperidine	100-75-4	12
N-Nitrosopyrrolidine	930-55-2	12
N-Nitrososarcosine	13256-22-9	12
Nitrotoluene, all isomers	99-08-1 <sup>2</sup>	4,016
Octachloronaphthalene	2234-13-1	37
Oestradiol	50-28-2	12
Oxalic acid	144-62-7	368
Oxymetholone	434-07-1	12
Paraquat (respirable sizes)	1910-42-5 <sup>2</sup>	37

Air Contaminant Name	CAS Number <sup>1</sup>	Reporting Level (lbs/yr)
Parathion	56-38-2	37
<sup>3</sup> Particulate matter		10,000
PM <sub>10</sub>		10,000
Pentachloronaphthalene	1321-64-8	179
Pentachloronitrobenzene (Quintobenzene) (PCNB)	82-68-8	6,000
Pentachlorophenol	87-86-5	179
<sup>3</sup> Perchloroethylene (Tetrachloroethylene)	127-18-4	6,000
Perchloromethyl mercaptan	594-42-3	294
Phenazopyridine and phenazopyridine hydrochloride	136-40-3 <sup>2</sup>	12
Phenol	108-95-2	6,000
Phenothiazine	92-84-2	1,829
p-Phenylenediamine	106-50-3	37
Phenyl ether vapor	101-84-8	2,554
Phenyl glycidyl ether (PGE)	122-60-1	2,186
Phenylhydrazine	100-63-0	3,831
Phenyl mercaptan	108-98-5	725
Phenytoin and sodium salt of phenytoin	57-41-0 <sup>2</sup>	12
Phorate	298-02-2	18
Phosgene	75-44-5	147
<sup>3</sup> Phosphine	7803-51-2	147
Phosphoric acid	7664-38-2	368
Phosphorus (yellow)	7723-14-0	37
Phosphorus oxychloride	10025-87-3	221
<sup>3</sup> Phosphorus pentachloride	10026-13-8	368
Phosphorus pentasulfide	1314-80-3	368
<sup>3</sup> Phosphorus trichloride	7719-12-2	547
Phthalic anhydride	85-44-9	2,186
Pindone	83-26-1	37
Platinum (metal)	7440-06-4	368
Platinum, soluble salts, as Pt	7440-06-4 <sup>2</sup>	0.73
Polychlorinated biphenyls (PCB)	1336-36-3	0.050
Potassium hydroxide	1310-58-3	442
Procarbazine and procarbazine hydrochloride	366-70-1 <sup>2</sup>	12
1,3-Propane sultone	1120-71-4	125
Propargyl alcohol	107-19-7	725
beta β-Propiolactone	57-57-8	125
Propionaldehyde	123-38-6	6,000
Propoxur	114-26-1	179
Propylene dichloride	78-87-5	6,000
Propylene glycol monomethyl ether (PGME)	107-98-2	6,000
Propylene oxide	75-56-9	125
Propylenimine	75-55-8	125
Propylthiouracil	51-52-5	12
Pyrethrum	8003-34-7	1,829
Pyridine	110-86-1	5,477
Quinoline	91-22-5	6,000
Quinone	106-51-4	147
Reserpine	50-55-5	12
Resorcinol	108-46-3	6,000
Rhodium (metal)	7440-16-6	368
Rhodium, soluble compounds, as Rh	7440-16-6 <sup>2</sup>	3.7
Rotenone (commercial)	83-79-4	1,829
Selenium and compounds, as Se	7782-49-2 <sup>2</sup>	73
<sup>3</sup> Silicon tetrahydride (Silane)	7803-62-5	2,554
Sodium bisulfite	7631-90-5	1,829
Sodium fluoroacetate	62-74-8	18
Sodium hydroxide	1310-73-2	442
<sup>3</sup> Stibine (Antimony hydride)	7803-52-3	179
Stoddard solvent (Mineral spirits)	8052-41-3	6,000
Streptozotocin	18883-66-4	12

Air Contaminant Name	CAS Number	Reporting Level (lbs/yr)
Strychnine	57-24-9	55
Styrene, monomer	100-42-5	6,000
Styrene oxide	96-09-3	6,000
Sulfotep (TEDP)	3689-24-5	73
<sup>3</sup> Sulfur dioxide	7446-09-5	10,000
Sulfuric acid	7664-93-9	368
Sulfur monochloride	10025-67-9	1,335
<sup>3</sup> Sulfur tetrafluoride	7783-60-0	88
<sup>3</sup> Sulfuryl fluoride	2699-79-8	6,000
Tellurium and compounds, as Te	13494-80-9 <sup>2</sup>	37
TEPP	107-49-3	18
Terphenyls	26140-60-3	1,114
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.00005
1,1,2,2-Tetrachloroethane	79-34-5	2,554
Tetrachloronaphthalene	1335-88-2	725
Tetrahydrofuran	109-99-9	6,000
Thallium, soluble compounds, as Tl	7440-28-0 <sup>2</sup>	37
<sup>3</sup> Thionyl chloride	7719-09-7	1,114
Thiourea	62-56-6	125
Thiram	137-26-8	1,829
Tin (metal)	7440-31-5	725
Tin organic compounds, as Sn	7440-31-5 <sup>2</sup>	37
Tin oxide & inorganic compounds, except SnH <sub>4</sub> , as Sn	7440-31-5 <sup>2</sup>	725
Titanium tetrachloride	7550-45-0	6,000
Toluene (Toluol)	108-88-3	6,000
Toluene-2,4-diisocyanate (TDI)	584-84-9	15
m-Toluidine	108-44-1	3,280
o-Toluidine	95-53-4	12
<sup>3</sup> Total reduced sulfur and reduced sulfur compounds	2	10,000
Tributyl phosphate	126-73-8	915
1,2,4-Trichlorobenzene	120-82-1	6,000
1,1,2-Trichloroethane	79-00-5	6,000
Trichloroethylene (TCE)	79-01-6	6,000
Trichloronaphthalene	1321-65-9	1,829
2,4,5-Trichlorophenol	95-95-4	6,000
2,4,6-Trichlorophenol	88-06-2	6,000
1,2,3-Trichloropropane	96-18-4	6,000
Triethylamine	121-44-8	6,000
Trifluralin	1582-09-8	6,000
Trimellitic anhydride	552-30-7	15
Trimethyl benzene, mixed isomers	25551-13-7 <sup>2</sup>	6,000
2,2,4-Trimethylpentane	540-84-1	6,000
Triorthocresyl phosphate	78-30-8	37
Triphenyl phosphate	115-86-6	1,093
Tris(1-aziridinyl)phosphine sulfide	52-24-4	12
Tungsten - as W, insoluble compounds	7440-33-7 <sup>2</sup>	1,829
Tungsten - as W, soluble compounds	7440-33-7 <sup>2</sup>	368
Uranium (natural), soluble & insoluble compounds, as U	7440-61-1 <sup>2</sup>	73
Urethane (Ethyl carbamate)	51-79-6	125
n-Valeraldehyde	110-62-3	6,000
Vanadium, as V <sub>2</sub> O <sub>5</sub> , respirable dust and fume	1314-62-1	179
Vinyl acetate	108-05-4	6,000
Vinyl bromide	593-60-2	6,000
Vinyl chloride	75-01-4	150
Vinyl cyclohexene dioxide	106-87-6	6,000
Vinylidene chloride	75-35-4	6,000
Vinyl toluene	25013-15-4	6,000
<sup>3</sup> Volatile organic compounds (Reactive organic gases) <sup>56</sup>	2	6,000
Warfarin	81-81-2	37
Xylene, mixed isomers (Xylol)	1330-20-7	6,000

Air Contaminant Name	CAS Number <sup>1</sup>	Reporting Level (lbs/yr)
m-Xylene	108-38-3	6,000
o-Xylene	95-47-6	6,000
p-Xylene	106-42-3	6,000
m-Xylene- $\alpha, \alpha'$ -diamine	1477-55-0	22
Xylidine, mixed isomers	1300-73-8 <sup>2</sup>	912
Zirconium and compounds, as Zr	7440-67-7 <sup>2</sup>	1,829

<sup>1</sup> Chemical Abstract Service or CAS numbers refer to the unique chemical abstracts service registry number assigned to a specific chemical, isomer or mixture of chemicals or isomers and recorded in the CAS chemical registry system by the Chemical Abstracts Service, PO Box 3012, Columbus OH 43210, phone 1-800-848-5638 ext. 2308.

<sup>2</sup> Indicates contaminants for which multiple CAS numbers may apply. For contaminants listed as a metal and its compounds, the given CAS number refers to the metal.

<sup>3</sup> Indicates contaminants for which a fee will be assessed under s. NR 410.04.

<sup>4</sup> Indicates compounds included in the glycol ethers group. These are included in the glycol ethers emission total reported along with the many other such compounds not listed individually by name.

<sup>45</sup> Glycol ethers means any compound which can be described by the following chemical formula:  $R(OCH_2CH_2)_n-OR'$

where:

n = 1, 2, or 3

R = alkyl C7 or less or R = phenyl or alkyl substituted phenyl

R' = H or alkyl C7 or less or

OR' = ester, sulfate, phosphate, nitrate or sulfonate (i.e. any group that will readily come off).

<sup>56</sup> Organic compounds which are not volatile organic compounds because of negligible photochemical reactivity are specified in s. NR 400.02(100) (162).

SECTION 90. NR 438.03(5)(a) is amended to read:

NR 438.03(5)(a) Based on the throughput or emissions information submitted pursuant to ss. NR 438.03 and 438.04, the department shall determine each facility's annual actual emissions and typical ozone season day emissions based on emission factors contained in Compilation of Air Pollutant Emission Factors, AP-42, Volume 1: Stationary Point and Area Sources, USEPA-OAQPS, January 1995, ~~or Toxic Air Pollutant Emission Factors — A Compilation for Selected Air Toxic Compounds and Sources, Second Edition, USEPA-OAQPS, October 1990~~ both as incorporated by reference in s.



SECTION 92. NR 439.06(3)(intro.) and (h) are amended to read:

NR 439.06(3)(intro.) ORGANIC COMPOUND EMISSIONS. The owner or operator of a source shall use the test methods and procedures listed in this subsection to determine compliance with an organic compound emission limitation. If a test method inadvertently measures compounds which are listed in s. NR 400.02(100) (162) as having negligible photochemical reactivity, the owner or operator may exclude these compounds when determining compliance with a VOC emission limit if the amount of these compounds is accurately quantified and the exclusion is approved by the department. As a precondition to excluding these compounds as VOC or at any subsequent time, the department may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the department, the amount of negligibly reactive compounds in the source's emissions. Unless a source achieves compliance through an averaging method specifically authorized by the department, organic compound emission limitations in chs. 419 to 424 shall be achieved on an instantaneous basis.

(h) Compounds identified in s. NR 400.02(100) (162) as having negligible photochemical reactivity shall be treated as water to determine compliance with emission limitations which refer to water.

SECTION 93. NR 439.07(1) and (4) are amended to read:

NR 439.07(1) GENERAL. All emission tests conducted for the purpose of determining compliance with an emission limitation under chs. NR 400 to 499 shall be performed according to the test methods established in 40 CFR part 60, Appendix A, 40 CFR part 61, Appendix B, and 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04, or according to other test methods approved in writing by the department. The owner, operator or contractor responsible for emission testing shall follow the procedures in this section. Unless the department requires or approves the performance of a test at less than capacity, all compliance emission tests shall be performed with the equipment operating at capacity or as close to capacity as practicable.

(4) NOTIFICATION OF TEST PLAN REVISION. The source owner or operator shall notify the department of any modifications to the test plan at least 5 business days prior to the test. In the event the owner or operator is unable to conduct the compliance emission test on the date specified in the test plan, due to unforeseeable circumstances beyond the owner or operator's control, the owner or operator shall notify the department ~~within~~ at least 5 business days prior to the scheduled compliance emission test date and specify the date when the test is rescheduled.

SECTION 94. NR 439.08(1)(a), (d) and (f) and (2)(a) and (b) are amended to read:

NR 439.08(1)(a) *Coal sampling*. Coal sampling shall be performed according to ASTM D2234-89

D2234-96, Standard Test Method for Collection of a Gross Sample of Coal, incorporated by reference in s. NR 484.10.

(d) *Heat content in coal.* The heat content of a coal sample shall be determined according to ASTM ~~D1989-93~~ D1989-96, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters, or ASTM ~~D2015-94~~ D2015-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter, both incorporated by reference in s. NR 484.10.

(f) *Moisture content in coal.* The moisture content of a coal sample shall be determined according to ASTM D3173-87 (1992) (1996), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, incorporated by reference in s. NR 484.10.

(2)(a) *Liquid fossil fuel sampling.* Liquid fossil fuel sampling shall be performed according to ASTM ~~D4057-88~~ D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, or ASTM ~~D4177-82 (1990)~~ D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, both incorporated by reference in s. NR 484.10.

(b) *Sulfur content in liquid fossil fuel.* The sulfur content of a liquid fossil fuel sample shall be determined according to ASTM ~~D129-94~~ D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), ASTM ~~D1552-90~~ D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), or ASTM D4294-90, Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-ray Fluorescence Spectroscopy, all incorporated by reference in s. NR 484.10.

SECTION 95. NR 439.085(2)(a)1., (b)1. and (c)1. are amended to read:

NR 439.085(2)(a)1. Perform coal sampling, using the procedures in ASTM ~~D2234-89~~ D2234-96, incorporated by reference in s. NR 484.10, which result in data at least as reliable as classification I-B-1, defined in ASTM ~~D2234-89~~ D2234-96 as automatic sampling — full stream cut — systematic spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in s. NR 439.08(1).

(b)1. Perform coal sampling using the procedures in ASTM ~~D2234-89~~ D2234-96, which result in data at least as reliable as classification I-C-2, defined in ASTM ~~D2234-89~~ D2234-96 as automatic sampling — part stream cut — random spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in s. NR 439.08(1).

(c)1. Perform coal sampling using the procedures in ASTM ~~D2234-89~~ D2234-96, which result in data at least as reliable as classification II-D-2, defined in ASTM ~~D2234-89~~ D2234-96 as manual sampling — stationary coal sampling — random spacing, and analyze these samples for ash content,

sulfur content and heat content according to the applicable methods and procedures in s. NR 439.08(1).

SECTION 96. NR 440.285(2)(k) is amended to read:

NR 440.285(2)(k) "Volatile organic liquid" or "VOL" means any organic liquid which can emit organic compounds except those VOLs that emit only those compounds which are excluded by name from the definition of volatile organic compound in s. NR 400.02(400) (162).

SECTION 97. NR 440.675(2)(a)(intro.) and 1. to 18. are renumbered 440.675(2)(intro.) and (a) to (r) and 440.675(2)(p), as renumbered, is amended to read:

NR 440.675(2)(p) "Total organic compounds" or "TOC" means those compounds measured according to the procedures in sub. (5)(b)4. For the purposes of measuring molar composition as required in sub. (5)(d)3. a., hourly emissions rate as required in sub. (5)(d) 6. and (e), and TOC concentration as required in sub. (6)(b)4. and (g)4., those compound compounds which the department has determined do not contribute appreciably to the formation of ozone are to be excluded. The compounds to be excluded are identified in s. NR 400.02(400) (162).

SECTION 98. NR 440.686(2)(a)(intro.) and 1. to 18. are renumbered 440.686(2)(intro.) and (a) to (r) and 440.686(2)(p), as renumbered, is amended to read:

NR 440.686(2)(p) "Total organic compounds" or "TOC" means those compounds measured according to the procedures in sub. (5)(b)4. For the purposes of measuring molar composition as required in sub. (5)(d)2. a., hourly emission emissions rate as required in sub. (5)(d)5. and (e); and TOC concentration as required in sub. (6)(b)4. and (g)4., those compounds which the department has determined do not contribute appreciably to the formation of ozone are to be excluded. The compounds to be excluded are identified in s. NR 400.02(400) (162).

SECTION 99. NR 445.02(intro.) and (1) are amended to read:

NR 445.02 DEFINITIONS. The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter and in chs. NR 446 to 468 469:

(1) "Approved material safety data sheet" means a material safety data sheet which meets the reporting requirements of the superfund amendments reauthorization act of 1986 (42 USC 9671 to 9675) or regulations of the occupational safety and health administration under 29 CFR 1910.1200(g), as in effect on January 1, ~~1997~~ 1998.

SECTION 100. NR 445.03 is amended to read:

NR 445.03 GENERAL LIMITATIONS. No person may cause, allow or permit emissions into the ambient air of any hazardous substance in ~~such a~~ a quantity, concentration or duration ~~as to be~~ which is injurious to human health, plant or animal life unless the purpose of that emission is for the control of plant or animal life. Hazardous substances include but are not limited to hazardous air contaminants listed in Tables 1 to 4 5 of s. NR 445.04.

SECTION 101. NR 445.05(1)(a)(intro.) and 1., (4)(a)(intro.) and 1., (6)(a)1.(intro.), a. and b., 2.(intro.), a. and b., 3.(intro.), a. and b., (b)(intro.), 1., 1m., and 2., (d)3., (f)3.(intro.) and a., (g)(intro.), 1., 1m. and 2. and (7)(b)(intro.), 1. and 2. are amended to read:

NR 445.05(1)(a)(intro.) 24-hour. One of the following:

1. Two and four-tenths percent of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for 1987-1988, incorporated by reference in s. NR 484.11, for any consecutive 24-hour averaging period; ~~or.~~

(4)(a)(intro.) 24-hour. One of the following:

1. Two and four-tenths percent of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for 1990-1991, incorporated by reference in s. NR 484.11, for any consecutive 24-hour averaging period; ~~or.~~

(6)(a)1.(intro.) Except as provided for in par. (am), the owner or operator of any facility whose actual emissions of volatile organic compounds or particulate matter for calendar year 1986 exceeded 100 tons shall do all of the following:

a. Notify the department's bureau of air management in writing by January 1, 1989 which of the hazardous air contaminants in Tables 1 to 3 of s. NR 445.04 the source is capable of emitting and the allowable emissions of each hazardous air contaminant in the tables by the source;

b. Submit to the department by April 1, 1989 a compliance plan for achieving compliance with subs. (1) to (3); ~~and.~~

2.(intro.) Except as provided for in par. (am), the owner or operator of any facility whose actual emissions for calendar year 1986 of volatile organic compounds and of particulate matter were less than 100 tons for each of the 2 air contaminants, but whose annual allowable emissions of any air contaminant for which an ambient air quality standard has been promulgated under section 109 of the act (42 USC 7409) exceeds 100 tons, shall do all of the following:

a. Notify the department's bureau of air management in writing by June 1, 1989 which of the

hazardous air contaminants in Tables 1 to 3 of s. NR 445.04 the source is capable of emitting and the allowable emissions of each substance in the tables by the source;\_

b. Submit to the department by October 1, 1989 a compliance plan for achieving compliance with subs. (1) to (3);\_and\_

3.(intro.) Except as provided for in par. (am), the owner or operator of any facility whose annual allowable emissions of each air contaminant for which an ambient air quality standard has been promulgated under section 109 of the act (42 USC 7409) is 100 tons or less shall do all of the following:

a. Notify the department's bureau of air management in writing by December 1, 1989 which of the hazardous air contaminants in Tables 1 to 3 of s. NR 445.04 the source is capable of emitting and the allowable emissions of each substance in the tables by the source;\_

b. Submit to the department by April 1, 1990 a compliance plan for achieving compliance with subs. (1) to (3);\_and\_

(b)(intro.) *Compliance schedule for Table 4.* The owner or operator of any source subject to sub. (4) shall do all of the following:

1. Notify the department's bureau of air management in writing by April 1, 1990 which of the hazardous air contaminants in Table 4 of s. NR 445.04 the source is capable of emitting and the allowable emissions of each hazardous air contaminant in the table by the source;\_

1m. Notify the department's bureau of air management in writing by January 1, 1992 which of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylydine the source is capable of emitting and the allowable emissions of each substance by the source;\_

2. Submit to the department by April 1, 1992 a compliance plan for achieving compliance with sub. (4);\_and\_

(d)3. The owner or operator of a source is not required to consider indoor fugitive emissions in calculating emissions of any hazardous air contaminant in Table 1, 2 or 4 of s. NR 445.04.

(f)3.(intro.) Notwithstanding the compliance deadlines in pars. (a)1. c., 2. c., 3. c., (am)3. and (bm)4., if the department is required to review a source's compliance plan under par. (c), the source shall achieve final compliance with subs. (1) to (3) and (4r) by one of the following deadlines:

a. Within 12 months after the department completes its review of the source's compliance plan under par. (c), if compliance consists of measures other than installation of emission control equipment;\_or\_

(g)(intro.) *Compliance schedule for wastewater treatment facilities.* The owner or operator of any wastewater treatment facility shall do all of the following:

1. Notify the department's bureau of air management in writing by December 1, 1989 which of the

hazardous air contaminants in Tables 1, 3 and 4 of s. NR 445.04 the source is capable of emitting and the allowable emissions of each hazardous air contaminant in the table by the source;

1m. Notify the department's bureau of air management in writing by January 1, 1992 which of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylydine the source is capable of emitting and the allowable emissions of each substance by the source;

2. Submit to the department by April 1, 1992 a compliance plan for achieving compliance with subs. (1), (3), and (4); and

(7)(b)(intro.) The owner or operator of any source subject to sub. (3) which emits chloroform or formaldehyde in amounts greater than those listed in Group B of Table 3 of s. NR 445.04 for chloroform or formaldehyde shall do all of the following:

1. Notify the department's bureau of air management in writing by December 1, 1989 that the source is capable of emitting chloroform or formaldehyde and the allowable emission of chloroform or formaldehyde by the source;

2. Submit to the department by April 1, 1992 a compliance plan for achieving compliance with the emission limits under sub. (3) for chloroform and formaldehyde; and

SECTION 102. NR 445.08 is amended to read:

NR 445.08 NOTICE OF HAZARDOUS SUBSTANCE AIR SPILLS. Persons possessing or controlling a hazardous substance shall immediately notify the department of any hazardous emission not in conformity with a permit or allowed by the department under chs. NR 400 to 499. Notice shall be given as required by s. 292.11, Stats., and ch. NR ~~458~~ 706.

SECTION 103. NR 446.01(2) Note is created to read:

NR 446.01(2) Note: Except for s. NR 446.03(1), this chapter is based on the federal regulations contained in 40 CFR part 61, Subpart E.

SECTION 104. NR 446.04(3)(d) Note is amended to read:

NR 446.04(3)(d) Note: A list of approved practices is provided in appendix A of "Review of National Emission Standards for Mercury," EPA-450/3-84-014a, December 1984, incorporated by reference in s. NR 484.05.

SECTION 105. NR 446.05(2)(a), (3)(intro.) and (b) are amended to read:

NR 446.05(2)(a) Perform a mercury emission test that demonstrates compliance with the emission limits in s. NR 446.03(2) on the hydrogen stream by Method 102 and on the end-box stream by Method 101 for the purpose of establishing limits for parameters to be monitored, within one year after June 1, 1994 or within one year of startup for a plant with initial startup after February 1, 1984.

(3)(intro.) The owner or operator of a facility subject to sub. (2) may develop and submit for the department's approval a plant-specific monitoring plan as an alternative to the monitoring, recordkeeping and reporting requirements of sub. (2)(a) to (g). Approval of an alternative plan shall ensure compliance with the emission limits of s. NR 446.03(1)(2), and proper operation and maintenance of emissions control systems. Any site-specific monitoring plan shall, at a minimum, include all of the following:

(b) Identification of the maximum or minimum value of each parameter that is not to be exceeded. The levels shall be directly correlated to the results of a performance test, conducted no more than 180 days prior to submittal of the plan, when the facility was in compliance with the emission limits of s. NR 446.03(1)(2).

SECTION 106. NR 447.01(2) Note is created to read:

NR 447.01(2) Note: This chapter is based on the federal regulations contained in 40 CFR part 61, Subpart M.

SECTION 107. NR 447.02(3) is amended to read:

NR 447.02(3) "Adequately wet" means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

SECTION 108. NR 447.02(3) Note is repealed.

SECTION 109. NR 447.08(2)(a), (3)(a)1., (4)(intro.) and (a) and (6)(a) are amended to read:

NR 447.08(2)(a) Adequately wet all RACM exposed during cutting or disjoining operations-; and

(3)(a)1. The owner or operator has obtained prior written approval from the department based on a written application that wetting to comply with this subsection would unavoidably damage equipment or present a safety hazard-; and

(4)(intro.) After a facility component covered with, coated with or containing RACM has been taken out of the facility as a unit or in sections pursuant to sub. (2), it shall be stripped or contained in leak-tight wrapping, except as described in sub. (5). If stripped, either:

(a) Adequately wet the RACM during stripping-; or

(6)(a) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with s. NR 447.13-; and

SECTION 110. NR 447.13(1)(a)4. is amended to read:

NR 447.13(1)(a)4. Label the containers or wrapped materials specified in subd. 3\_ using warning labels specified by occupational safety and health standards of the U.S. department of labor, occupational safety and health administration (OSHA) under 29 CFR 1910.1001(j)(2) or 1926.58(k)(2)(iii), incorporated by reference in s. NR 484.03. The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

SECTION 111. NR 447.15(1)(a)1. is amended to read:

NR 447.15(1)(a)1. Ensuring that the airflow permeability, as determined by ASTM Method ~~D737-75~~ D737-96, incorporated by reference in s. NR 484.10, does not exceed  $9 \text{ m}^3/\text{min}/\text{m}^2$  ( $30 \text{ ft}^3/\text{min}/\text{ft}^2$ ) for woven fabrics or  $11 \text{ m}^3/\text{min}/\text{m}^2$  ( $35 \text{ ft}^3/\text{min}/\text{ft}^2$ ) for felted fabrics, except that  $12 \text{ m}^3/\text{min}/\text{m}^2$  ( $40 \text{ ft}^3/\text{min}/\text{ft}^2$ ) for woven and  $14 \text{ m}^3/\text{min}/\text{m}^2$  ( $45 \text{ ft}^3/\text{min}/\text{ft}^2$ ) for felted fabrics is allowed for filtering air from asbestos ore dryers.

SECTION 112. NR 447.16(2) is amended to read:

NR 447.16(2) The information required by sub. (1) shall accompany the information required by 40 CFR 61.10 as in effect on January 1, ~~1997~~ 1998. Active waste disposal sites subject to s. NR 447.17 shall also comply with this provision. Roadways, demolition and renovation, spraying, and insulating materials are exempted from the requirements of 40 CFR 61.10(a). The information described in this section shall be reported using the format of Appendix A of 40 CFR part 61, incorporated by reference in s. NR 484.04, as a guide.

SECTION 113. NR 448.01(2) Note is created to read:

NR 448.01(2) Note: This chapter is based on the federal regulations contained in 40 CFR part 61, Subparts C and D.

SECTION 114. NR 448.03(1)(b) and (2) are amended to read:

NR 448.03(1)(b) Machine shops which process beryllium, beryllium oxides or any alloy when ~~such~~ the alloy contains more than ~~5%~~ 5.0% beryllium by weight.

(2) The burning of beryllium ~~and/or~~ or beryllium-containing waste, except propellants, is prohibited except in incinerators, emissions from which must comply with sub. (1).



SECTION 115. NR 448.04(4)(a)(intro.) is amended to read:

NR 448.04(4)(a)(intro.) Sources subject to sub. (3) shall be continuously sampled during the release of combustion products from the tank so that compliance with the standards can be determined.

The tests shall be conducted in accordance with: Method 103 or Method 104 of 40 CFR part 61, Appendix B, incorporated by reference in s. NR 484.04.

SECTION 116. NR 448.04(4)(a)1. and 2. are repealed.

SECTION 117. NR 449.01(2) Note is created to read:

NR 449.01(2) Note: This chapter is based on the federal regulations contained in 40 CFR part 61, Subpart F.

SECTION 118. NR 449.07(2)(h)3.(intro.) and a. are amended to read:

NR 449.07(2)(h)3.(intro.) It provides for an acceptable calibration and maintenance schedule for the vinyl chloride monitoring system and portable hydrocarbon detector. For the vinyl chloride monitoring system, a daily span check shall be conducted with a concentration of vinyl chloride equal to the concentration defined as a leak according to subd. 6. The calibration shall be done with either one of the following:

a. A calibration gas mixture prepared from the gases specified in section 5.2.1 and 5.2.2 and in accordance with section 7.1 of Method 106 of 40 CFR part 61, Appendix B, incorporated by reference in s. NR 484.04, ~~or~~.

SECTION 119. NR 460.01(2) is amended to read:

NR 460.01(2) PURPOSE. Chapters NR 460 to 469 are adopted to enable the department to implement and enforce standards for stationary sources promulgated by EPA under section 112 of the act (42 USC 7412), as required by ss. 285.27(2) and 285.65, Stats. This chapter ~~establishes~~ is adopted under ss. 285.11, 285.13 and 285.17, Stats., to establish general provisions for notification, recordkeeping, monitoring and reporting requirements for sources of hazardous air contaminants.

SECTION 120. NR 460.10(2)(f) is amended to read:

NR 460.10(2)(f) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

$H_T$  is the net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C

K is a constant

$$1.740 \times 10^{-7} \left[ \frac{1}{\text{ppmv}} \right] \left[ \frac{\text{g-mole}}{\text{scm}} \right] \left[ \frac{\text{MJ}}{\text{kcal}} \right]$$

where the standard temperature for (g-mole/scm) is 20°C

$C_i$  is the concentration of sample component i in ppmv on a wet basis, as measured for organics by Method 18 in Appendix A of 40 CFR part 60, incorporated by reference in s. NR 484.04, and measured for hydrogen and carbon monoxide by ASTM D1946-90, incorporated by reference in s. NR 484.10

$H_i$  is the net heat of combustion of sample component i, kcal/g-mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-88 D4809-95, incorporated by reference in s. NR 484.10, if published values are not available or cannot be calculated.

n is the number of sample components

SECTION 121. NR 460 Appendix T is amended to read:

#### Chapter NR 460

#### Appendix T

#### **General Provisions Applicability to Chapter NR 469**

The general provisions of this chapter listed in the Reference column apply to batch cold cleaning machines or batch vapor and in-line cleaning machines regulated under ch. NR 469 only if a Yes appears in the same row in the BCC or BVI column, respectively. Certain provisions in other chapters which correspond to federal provisions in 40 CFR part 63 Subpart A are also included in the Reference column.

<b>Applies to Chapter NR 469?</b>			
<b>Reference</b>	<b>BCC<sup>1</sup></b>	<b>BVI<sup>2</sup></b>	<b>Comment</b>
NR 2.19 and 2.195	Yes	Yes	

NR 406

Yes

Yes

Section NR 469.12(1) requires owners or operators who plan to construct or reconstruct a halogenated HAP solvent cleaning machine to submit an initial notification report, and specifies that that report be part of and incorporated into the application required under either s. NR 406.03 or 407.04(1)(b)3., whichever is

**Appendix T (continued)**  
**General Provisions Applicability to Chapter NR 469**

Reference	Applies to Chapter NR 469?		Comment
	BCC <sup>1</sup>	BVI <sup>2</sup>	
			appropriate.
NR 407.04(1)(b)3.	Yes	Yes	See comment above.
NR 460.01	Yes	Yes	<p>This appendix specifies applicability of each paragraph in ch. NR 460 and other rules to ch. NR 469.</p> <p>Chapter NR 469 allows submittal of notifications and reports through the U.S. mail, fax and courier.</p> <p>Chapter NR 469 requires that the postmark for notifications and reports submitted through the U.S. mail or other non-governmental mail carriers be on or before deadline specified in an applicable requirement.</p> <p>Section NR 469.01(1) further specifies applicability.</p> <p>Chapter NR 469 requires that a record of halogenated solvent cleaning machine applicability determination be kept on site for 5 years, or until the cleaning machine changes its operations. The record shall be sufficiently detailed to allow the department to make a finding about the source's applicability status with regard to ch. NR 469.</p> <p>Chapter NR 469 does not require continuous monitoring systems (CMS) or continuous opacity monitoring systems. Therefore, notifications and requirements for CMS and COMS specified in ch. NR 460 do not apply to ch. NR 469. The definition of administrator in s. NR 400.02 applies to chs. NR 460 to 469.</p>
NR 460.02	Yes	Yes	Section NR 469.02(17) and (30) definitions for existing and new overlap with the definitions for existing source and new source in s. NR 460.02(20) and (25).
NR 460.03	Yes	Yes	

**Appendix T (continued)**  
**General Provisions Applicability to Chapter NR 469**

Reference	Applies to Chapter NR 469?		Comment
	BCC <sup>1</sup>	BVI <sup>2</sup>	
NR 460.05(4)(c)	No	No	Chapter NR 469 overrides the requirement of a startup, shutdown and malfunction plan. Sections NR 469.05(6) and (7) specify startup and shutdown procedures to be followed by an owner or operator for batch vapor and in-line cleaning machines.
NR 460.05(5)	Yes	Yes	

**Appendix T (continued)**  
**General Provisions Applicability to Chapter NR 469**

Reference	Applies to Chapter NR 469?		Comment
	BCC <sup>1</sup>	BVI <sup>2</sup>	
NR 460.07(7)	No	No	Chapter NR 469 does not require continuous opacity monitoring systems and continuous monitoring systems data.
NR 460.08(1)	Yes	Yes	
NR 460.08(2)(a)	Yes	Yes	

**Appendix T (continued)**  
**General Provisions Applicability to Chapter NR 469**

Reference	Applies to Chapter NR 469?		Comment
	BCC <sup>1</sup>	BVI <sup>2</sup>	
NR 460.09(3)	No	No	Chapter NR 469 does not require continuous monitoring systems.
NR 460.09(4)(a)	Yes	Yes	
NR 460.09(4)(b)	No	No	Reporting requirements are specified in s. NR 469.12.
NR 460.09(5)(a) to (b)	No	No	Chapter NR 469 does not require continuous emissions monitoring systems.
NR 460.09(5)(c)	No	No	Chapter NR 469 does not require continuous monitoring systems.
NR 460.09(5)(d)	No	No	Chapter NR 469 does not require continuous opacity monitoring systems.
NR 460.09(6)	Yes	Yes	
NR 460.10(1)	Yes	Yes	
NR 460.10(2)	No	No	Flares are not a control option under ch. NR 469.
NR 484.04	No	No	<del>Chapter NR 469 requirements do not require the use of the test methods incorporated by reference in ch. NR 460.</del>

<sup>1</sup>Batch cold cleaning machines.

<sup>2</sup>Batch vapor and in-line cleaning machines.

SECTION 122. NR 463.12(5)(b)(intro.) is amended to read:

NR 463.12(5)(b)(intro.) Each time a notification of compliance status is required under this subsection, the owner or operator of an affected source shall submit to the department a notification of compliance status, signed by the responsible official, as defined in s. NR 400.02(80e) (136), who shall certify its accuracy, attesting to whether the affected source has complied with this chapter. The notification shall list for each affected source the following:

SECTION 123. NR 468.20(1)(g), (2)(mm)(intro.), 1. and 2., (r)1. and 2., (3)(a)3., (b)(intro.), 1. and 2., (e)(intro.), 1. and 2., (f), (g) and (h), (4)(b)(intro.), 1. and 2. and (c)(intro.), 1. and 2., (5)(b)(intro.), 1., 2., 3., 4. and 5., (c)(intro.), 1. and 2. are amended to read:

NR 468.20(1)(g) A dry cleaning facility is a major source if the facility emits or has the potential to emit more than 9.1 megagrams per year (10 tons per year) of perchloroethylene to the atmosphere. In lieu of measuring or determining a facility's potential to emit perchloroethylene emissions, a dry cleaning facility is a major source if in either of the following cases:

1. ~~It~~ If it includes only dry-to-dry machines and has a total yearly perchloroethylene

consumption greater than 8,000 liters (2,100 gallons) as determined according to sub. (4)(d); ~~or,~~

2. ~~It~~ If it includes only transfer machine systems or both dry-to-dry machines and transfer

machine systems and has a total yearly perchloroethylene consumption greater than 6,800 liters (1,800 gallons) as determined according to sub. (4)(d).

(2)(mm)(intro.) "Perceptible leaks" mean any perchloroethylene vapor or liquid leaks that are obvious from any of the following:

1. The odor of perchloroethylene;

2. Visual observation, such as pools or droplets of liquid; ~~or,~~

(r)1. A washer and dryers;

2. A washer and reclaimers; ~~or,~~

(3)(a)3. Contain the dry cleaning machine inside a room enclosure if the dry cleaning machine is a transfer machine system located at a major source. Each room enclosure shall be:

~~—~~ a. ~~Constructed~~ constructed of materials impermeable to perchloroethylene; and

~~—~~ b. Designed designed and operated to maintain a negative pressure at each opening at all times so that the machine is operating.

(b)(intro.) The owner or operator of each new dry cleaning system shall do all of the following:

1. Route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser or an equivalent control device;

2. Eliminate any emission of perchloroethylene during the transfer of articles between the washer and dryers; and,

(e)(intro.) Each refrigerated condenser used for the purposes of complying with par. (a) or (b) and installed on a dry-to-dry machine, dryer or reclaimer shall be all of the following:

1. Operated to not vent or release the air-perchloroethylene gas-vapor stream contained within the dry cleaning machine to the atmosphere while the dry cleaning machine drum is rotating;

2. Monitored according to sub. (4)(a)1.; and

(f) Each refrigerated condenser used for the purpose of complying with par. (a) and installed on a washer shall comply with all of the following requirements:

1. ~~Shall~~ It shall be operated to not vent the air-perchloroethylene gas-vapor contained within the washer to the atmosphere until the washer door is opened;

2. ~~Shall~~ It shall be monitored according to sub. (4)(a)2.; and

3. ~~Shall~~ It may not use the same refrigerated condenser coil for the washer that is used by a dry-to-dry machine, dryer or reclaimer.

(g) Each carbon adsorber used for the purposes of complying with par. (a) or (b) shall meet all of the following requirements:

1. ~~Shall~~ It may not be bypassed to vent or release any air-perchloroethylene gas-vapor stream to the atmosphere at any time; ~~and.~~

2. ~~Shall~~ It shall be monitored according to the applicable requirements in sub. (4)(b) or (c).

(h) Each room enclosure used for the purposes of complying with par. (a)3. shall meet all of the following requirements:

1. ~~Shall~~ It shall be operated to vent all air from the room enclosure through a carbon adsorber or an equivalent control device; ~~and.~~

2. ~~Shall~~ It shall be equipped with a carbon adsorber that is not the same carbon adsorber used to comply with par. (a)2. or (b)3.

(4)(b)(intro.) When a carbon adsorber is used to comply with sub. (3)(a)2. or exhaust is passed through a carbon adsorber immediately upon machine door opening to comply with sub. (3)(b)3., the owner or operator shall measure the concentration of perchloroethylene in the exhaust of the carbon adsorber weekly with a colorimetric detector tube, while the dry cleaning machine is venting to that carbon adsorber at the end of the last dry cleaning cycle prior to desorption of that carbon adsorber to determine that the perchloroethylene concentration in the exhaust is equal to or less than 100 parts per million by volume. The owner or operator shall do all of the following:

1. Use a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of perchloroethylene in air to an accuracy of  $\pm 25$  parts per million by volume; ~~and.~~

2. Use the colorimetric detector tube according to the manufacturer's instructions; ~~and.~~

(c)(intro.) If the air-perchloroethylene gas-vapor stream is passed through a carbon adsorber prior to machine door opening to comply with sub. (3)(b)3., the owner or operator of an affected facility shall measure the concentration of perchloroethylene in the dry cleaning machine drum at the end of the dry cleaning cycle weekly with a colorimetric detector tube to determine that the perchloroethylene concentration is equal to or less than 300 parts per million by volume. The owner or operator shall do all of the following:

1. Use a colorimetric detector tube designed to measure a concentration of 300 parts per million by volume of perchloroethylene in air to an accuracy of  $\pm 75$  parts per million by volume; ~~and.~~

2. Use the colorimetric detector tube according to the manufacturer's instructions; ~~and.~~

(5)(b)(intro.) Each owner or operator of a dry cleaning facility shall submit to the department by registered mail, on or before the 30th day following the compliance dates specified in sub. (1)(b) or (c), a notification of compliance status providing all of the following information and signed by a responsible official who shall certify its accuracy:

1. The name and address of the owner or operator; ~~and.~~

2. The address representing the physical location of the dry cleaning facility; ~~and.~~



3. A brief description of the type of each dry cleaning machine at the dry cleaning facility;
  4. The yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to sub. (4)(d);
  5. Whether or not facility is in compliance with each applicable requirement of sub. (3); and
- (c)(intro.) Each owner or operator of an area source dry cleaning facility that exceeds the solvent consumption limit reported in par. (b) shall submit to the department by registered mail, on or before the dates specified in sub. (1)(f) or (i), a notification of compliance status providing all of the following information and signed by a responsible official who shall certify its accuracy:
1. The new yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to sub. (4)(d);
  2. Whether or not the facility is in compliance with each applicable requirement of sub. (3); and

SECTION 124. NR 484.03(intro.), Note and (4) are amended to read:

**NR 484.03 CODE OF FEDERAL REGULATIONS.** (intro.) The federal regulations in effect on July 1, ~~1996~~ 1998 listed in the first column of Table 1 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 1.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin and in some public libraries or may be purchased for personal use from:

Superintendent of Documents  
 U.S. Government Printing Office  
 Washington DC 20402  
 PO Box 371954  
 Pittsburgh PA 15250-7954

CFR Reference	Title	Incorporated by Reference For
(4) 40 CFR part 53	Ambient Air Monitoring Reference and Equivalent Methods	NR 404.02(4m) <u>NR 404.06(3)(b)</u>

SECTION 125. NR 484.04(intro.), Note, (11), (13), (16), (23) and (24) are amended to read:

**NR 484.04 CODE OF FEDERAL REGULATIONS APPENDICES.** (intro.) The appendices to federal regulations in effect on July 1, ~~1996~~ 1998 listed in the first column of Table 2 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 or code

of federal regulations appendix method listed in the third column of Table 2. Since some of these materials are incorporated by reference for another appendix of the code of federal regulations and the other appendix is also incorporated by reference in this section, the materials listed in this section which are incorporated by reference for the other appendix are hereby also incorporated by reference and made a part of this chapter.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin and in some public libraries or may be purchased for personal use from:

Superintendent of Documents

U.S. Government Printing Office

Washington DC 20402

PO Box 371954

Pittsburgh PA 15250-7954

CFR Appendix Referenced	Title	Incorporated by Reference For
(11) 40 CFR part 51 Appendix W <sup>1</sup>	Guideline on Air Quality Models (Revised)	NR 405.10 NR 489.09(3) (intro.)
(13) 40 CFR part 60 Appendix A	Test Methods	NR 400.02(77)(131) NR 439 NR 460 to 469
(16) 40 CFR part 60 Appendix A, Method 18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography	NR 400.02(43d)(77) NR 422.142(5)(a)
(23) 40 CFR part 61 Appendix B	Test Methods	NR 400.02(77)(131) NR 439 NR 445.02(9m) NR 446 to NR 483 469
(24) 40 CFR part 63 Appendix A	Test Methods	NR 400.02(77)(131) NR 439 NR 460 to 469

SECTION 126. NR 484.04 Table 2 footnote 1 is repealed.

SECTION 127. NR 484.05(1), (3) and (8) are amended to read:

Document Reference	Document Title	Incorporated by Reference For
NR 484.05		
(1) NTIS Order No. PB 87-100012	Standard Industrial Classification Manual, 1987	NR 400.02(74) NR 400.02(47m)(86) NR 400.02(51m)(91) NR 400.02(91)(149) NR 405.02(8) NR 407.02(4)(intro.) NR 407.05(4)(b) NR 408.02(5) NR 410.02(4) NR 421.02(3) NR 421.02(17) NR 422.02(112) NR 422.095(1) NR 422.15(1)(intro.) NR 438.02(1)
(3) NTIS Order No. PB93-192664	Metropolitan Areas, 1993	NR 400.02(53p)(96)
(8) EPA, OAQPS, AP-42	Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point And Area Sources, Fifth Edition, January 1995, as revised by Supplement A (1996), Supplement B (1997), Supplement C (1998)	NR 438.03(5)(a) NR 489.09(2)(b)

SECTION 128. NR 484.05(9) is repealed and recreated to read:

Document Reference	Document Title	Incorporated by Reference For
NR 484.05		
(9) EPA-450/3-84-014a, December 1984	Review of National Emission Standards for Mercury	NR 446.04(3)(d)Note

SECTION 129. NR 484.05(10) is repealed.

Washington DC 20240

TABLE 4B

U.S. BUREAU OF MINES DOCUMENT REFERENCE

SECTION 132. NR 484.10(intro.), Note and (1) to (10) are amended to read:

NR 484.10 AMERICAN SOCIETY FOR TESTING AND MATERIALS. (intro.) The

American society for testing and materials (ASTM) standards listed in the first column of Table 5 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the

- NR 400.02(43e)(79)  
NR 439.08(2)(c)
- (5) ASTM D287-92 Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method) 40 CFR part 75 Appendix D
- (6) ASTM D323-90 Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method) NR 420.02(31)
- (7) ASTM D388-92 Standard Classification of Coals by Rank 40 CFR part 75 Appendix F  
NR 400.02(22e)(40)
- (8) ASTM D396-92 Standard Specification for Fuel Oils NR 400.02(41m)(70)  
NR 400.02(80)(135)  
NR 420.03(1)(a)
- (9) ASTM D523-89 Test Method for Specular Gloss ANSI/AHA A135.5-1988  
(1994)
- (10) ASTM D737-75 Standard Test Method for Air Permeability of Textile Fabrics NR 447.15(1)(a)1.  
(1980) D737-96

SECTION 133. NR 484.10(12m) is repealed.

SECTION 134. NR 484.10(13) to (16), (18), (19), (21), (22), (24), (25) to (29), (31), (32), (33) and (34) are amended to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10		
(13) <u>ASTM D975-92a</u> <u>D975-98a</u>	Standard Specification for Diesel Fuel Oils	NR 409.02(34) NR 420.03(1)(a)
(14) <u>ASTM D1037-94</u> <u>D1037-96a</u>	Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials	ANSI/AHA A135.5-1988
(15) <u>ASTM D1072-90</u> (1994)	Standard Test Method for Total Sulfur in Fuel Gases	40 CFR part 75 Appendix D NR 409.04(4)(a)3.
(16) <u>ASTM D1193-91</u>	Standard Specification for Reagent Water	40 CFR part 60 Appendix A: Method 5F, par. 3.1 Method 5H, par. 3.1.3

- Method 8, par. 3.1.3  
 Method 11, par. 6.1.3  
 Method 12, par. 4.1.3  
 Method 13A, par. 6.1.2  
 Method 14A, par. 7.1  
 Method 25D, par. 3.2.2.4  
 Method 26, par. 3.1.1  
 Method 26A, par. 3.1.1  
 Method 29, pars. 4.2.2, 4.4.2  
 and 4.5.6  
 40 CFR part 61 Appendix B,  
 Method 101, par. 6.1.1
- (18) ASTM D1250-80 ~~(1990)~~ (1997) Standard Guide for Petroleum Measurement Tables 40 CFR part 75 Appendix D
- (19) ASTM ~~D1265-92~~ D1265-97 Standard Practice for Sampling Liquefied Petroleum (LP) Gases (Manual Method) NR 409.04(4)(a)3.
- (21) ASTM D1308-87 (1998) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes ANSI/AHA A135.5-1988
- (22) ASTM ~~D1475-90~~ D1475-96 Standard Test Method for Density of ~~Paint, Varnish, Lacquer, Liquid~~ Coatings, Inks, and Related Products 40 CFR part 60 Appendix A:  
 Method 24, par. 2.1  
 Method 24A, par. 2.2  
 Method 24A, par. 2.3
- (24) ASTM D1481-93 (1997) Standard Test Method for Density and Relative Density (Specific Gravity) of Viscous Materials by Lipkin Bicapillary Pycnometer 40 CFR part 75 Appendix D
- (25) ASTM ~~D1552-90~~ D1552-95 Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method) 40 CFR part 75 Appendices A and D  
 NR 439.08(2)(b)
- (26) ASTM D1826-94 Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter 40 CFR part 60 Appendix A, Method 19  
 40 CFR part 75 Appendices E and F  
 NR 400.02(43e)(79)
- (27) ASTM ~~D1945-94~~ D1945-96 Standard Test Method for Analysis of Natural Gas by Gas Chromatography 40 CFR part 75 Appendices F and G
- (28) ASTM D1946-90 (1994) Standard Practice for Analysis of Reformed Gas by Gas Chromatography 40 CFR part 75 Appendices F and G  
 NR 460.10(2)(f)

- (29) ~~ASTM D1989-93~~ D1989-96 Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters NR 439.08(1)(d)
- (31) ~~ASTM D2015-94~~ D2015-96 Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter 40 CFR part 60 Appendix A, Method 19  
40 CFR part 75 Appendices A, D, E and F  
NR 400.02(43e)(79)  
NR 439.08(1)(d)
- (32) ~~ASTM D2197-86 (1991)~~ D2197-98 Standard Test Method for Adhesion of Organic Coatings by Scrape Adhesion ANSI/AHA A135.5-1988
- (33) ~~ASTM D2234-89~~ D2234-96 Standard Test Methods for Collection of a Gross Sample of Coal 40 CFR part 60 Appendix A, Method 19  
40 CFR part 75 Appendix F  
NR 439.08(1)(a)  
NR 439.085(2)(a)1.  
NR 439.085(2)(b)1.  
NR 439.085(2)(c)1.
- (34) ~~ASTM D2369-93~~ D2369-98 Standard Test Method for Volatile Content of Coatings 40 CFR part 60 Appendix A, Method 24, par. 2.2

SECTION 135. NR 484.10(34) Note is created to read:

NR 484.10(34) Note: ASTM D2382 was discontinued in 1994, and replaced by ASTM D4809.

SECTION 136. NR 484.10(35) is repealed.

SECTION 137. NR 484.10(36), (37), (39) to (42), (47) to (52) and (54) are amended to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10		
(36) <del>ASTM D2486-89</del> <u>D2486-96</u>	Standard Test Method for Scrub Resistance of Interior Latex Flat Wall Paints	ANSI/AHA A135.5-1988
(37) <del>ASTM D2502-92 (1996)</del>	Standard Test Method for Estimation of Molecular Weight (Relative Molecular Mass) of Petroleum Oils from Viscosity Measurements	40 CFR part 75 Appendix G
(39) <del>ASTM D2622-</del>	Standard Test Method for Sulfur in	40 CFR part 75 Appendices A



92 <u>D2622-98</u>	Petroleum Products by <u>Wavelength Dispersive X-ray Fluorescence Spectrometry</u>	and D NR 409.04(4)(a)1.
(39m) ASTM <u>D2879-92</u> <u>D2879-97</u>	Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope	NR 422.142(5)(d)
(40) ASTM <u>D2880-92</u> <u>D2880-98</u>	Standard Specification for Gas Turbine Fuel Oils	NR 420.03(1)(a)
(41) ASTM <u>D2986-94</u> <u>D2986-95a</u>	Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test	40 CFR part 60 Appendix A: Method 5, par. 3.1.1 Method 12, par. 4.1.1 Method 13A, par. 6.1.1.2 Method 17, par. 3.1.1
(42) ASTM <u>D3173-87</u> (1992) (1996)	Standard Test Method for Moisture in the Analysis Sample of Coal and Coke	40 CFR part 60 Appendix A, Method 19  NR 439.08(1)(f)
(47) ASTM <u>D3238-90</u> <u>D3238-95</u>	Standard Test Method for Calculation of Carbon Distribution and Structural Group Analysis of Petroleum Oils by the n-d-M Method	40 CFR part 75 Appendix G
(48) ASTM <u>D3792-94</u> <u>D3792-98</u>	Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph	40 CFR part 60 Appendix A, Method 24, par. 2.3
(49) ASTM <u>D4017-90</u> <u>D4017-96a</u>	Standard Test Method for Water in Paints and Paint Materials by Karl Fischer Method	40 CFR part 60 Appendix A, Method 24, par. 2.4
(50) ASTM <u>D4052-94</u> <u>D4052-96</u>	Standard Test Method for Density and Relative Density of Liquids by Digital Density Meter	40 CFR part 75 Appendix D
(51) ASTM <u>D4057-88</u> <u>D4057-95</u>	Standard Practice for Manual Sampling of Petroleum and Petroleum Products	40 CFR part 75 Appendix D  NR 409.04(4)(a)1. NR 439.08(2)(a)
(52) ASTM <u>D4177-82</u> (1990) <u>D4177-95</u>	Standard Practice for Automatic Sampling of Petroleum and Petroleum Products	40 CFR part 75 Appendix D  NR 439.08(2)(a)
(54) ASTM <u>D4294-90</u> <u>D4294-98</u>	Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy Spectrometry	40 CFR part 75 Appendices A and D NR 409.04(4)(a)1. NR 439.08(2)(b)

SECTION 138. NR 484.10(55) is renumbered 484.10(56) and amended to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (56) ASTM E84-94 E84-97a	Standard Test Method for Surface Burning Characteristics of Building Materials	ANSI/AHA A135.5-1988

SECTION 139. NR 484.10(55) is created to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (55) ASTM D4809-95	Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Intermediate Precision Method)	40 CFR part 75 Appendices D, E and F NR 460.10(2)(f)

SECTION 140. NR 484.10(56) is renumbered 484.10(57) and amended to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (57) ASTM G23-93 G23-96	Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials	ANSI/AHA A135.5-1988

SECTION 141. NR 484.11(5) is amended to read:

NR 484.11(5) The following is a document from the architectural aluminum manufacturer's association (AAMA).

Note: Copies may be purchased for personal use from:

Architectural Aluminum Manufacturer's Association  
2700 River Road Suite 118  
Des Plaines IL 60018

TABLE 6E  
AAMA DOCUMENT REFERENCE

Document Number	Title	Incorporated by Reference For
AAMA 605.2-85 605.2-92	Voluntary Specification For High Performance Organic Coatings On Architectural Extrusions and Panels	NR 422.02(41)(42)

SECTION 142. NR 485.02(8), (9) and (23) are amended to read:

NR 485.02(8) "Evaporative system integrity test" or "evaporative system pressure integrity test" means the test specified in 40 CFR 51.357(a)(10), as in effect on ~~January 1, 1996~~ July 1, 1998, which checks for leaks in the fuel system by monitoring the pressure decay of a pressurized fuel system for up to 2 minutes.

(9) "Evaporative system purge test" means the test specified in 40 CFR 51.357(a)(9), as in effect on ~~January 1, 1996~~ July 1, 1998, which consists of measuring the total purge flow occurring in the vehicle's evaporative system during the transient emission test.

(23) "Transient emission test" means the emission test specified in 40 CFR 51.357(a)(11), as in effect on ~~January 1, 1996~~ July 1, 1998, which consists of 240 seconds of mass emission measurement while the vehicle is driven on a dynamometer.

SECTION 143. NR 485.04(2)(c), (8)(a) and (b) and (10)(intro.) are amended to read:

NR 485.04(2)(c) Oxides of nitrogen in ~~rates~~ a rate that exceeds the applicable composite emission rate in Table 1 when measured over the entire transient driving cycle, except as provided in sub. (9).

(8)(a) *Pressure test.* The department may designate a test procedure as an alternative

SECTION 144. NR 487.14 Table 5 is amended to read:

NR 487.14

**Table 5**

**Vehicle Equivalent for LDVs and LDTs**

**Credit Needed in lieu of Purchasing a LEV to meet the Mandate**

NMOG + NO <sub>x</sub>	LDV, LDT	LDT	LDT	LDT	LDT
	≤ 6000 lb.	≤ 6000 lb.	> 6000 lb.	> 6000 lb.	> 6000 lb.
	GVWR,	GVWR,	GVWR,	GVWR,	GVWR,
	≤ 3750 lb.	> 3750 lb.	≤ 3750 lb.	> 3750 lb.	> 5750 lb.
	LVW	LVW	ALVW	ALVW	ALVW
		≤ 5750 lb.		≤ 5750 lb.	
		LVW		ALVW	
LEV	1.00	1.39	0.33	0.43	0.52

SECTION 145. NR 489.01(1) is amended to read:

NR 489.01(1) The purpose of this rule is to implement section 176(c) of the clean air act (42 USC 7406(c)) and regulations under 40 CFR part 51 subpart W as in effect on ~~October 1, 1995~~ July 1, 1998 with respect to the conformity of general federal actions to the applicable implementation plan. Under those authorities, no department, agency or instrumentality of the federal government may engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. This chapter sets forth policy, criteria and procedures for demonstrating and assuring conformity of such actions with the applicable implementation plan.

SECTION 146. NR 489.02(intro.), (6), (22) and (23) are amended to read:

**NR 489.02 DEFINITIONS.** (intro.) The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, terms used but not defined in ch. NR 400 or this chapter shall have the meanings given them by the act and the environmental protection agency's (EPA) regulations promulgated under the act as of July 1, 1998, in that order of priority. The following definitions apply to the terms used in this chapter:

(6) "Criteria pollutant" means any pollutant for which there is established a NAAQS under 40 CFR part 50 as in effect on ~~October 1, 1995~~ July 1, 1998.

(22) "NEPA" means the national environmental policy act of 1969 (42 USC 4321 to 4347) as in effect on ~~October 1, 1995~~ July 1, 1998.

(23) "Nonattainment area" or "NAA" means any geographic area of the United States which has been designated as nonattainment under section 107 of the act (42 USC 7407) and described in 40 CFR part 81 as in effect on ~~October 1, 1995~~ July 1, 1998.

SECTION 147. NR 489.04 is amended to read:

NR 489.04 CONFORMITY ANALYSIS. Any federal department, agency, or instrumentality of the federal government taking an action subject to 40 CFR part 51 subpart W, as in effect on ~~October 1, 1995~~ July 1, 1998, and this chapter shall make its own conformity determination consistent with the requirements of this chapter. In making its conformity determination, a federal agency shall consider comments from any interested parties. Where multiple federal agencies have jurisdiction for various aspects of a project, a federal agency may choose to adopt the analysis of another federal agency, to the extent the proposed action and impacts analyzed are the same as the project for which a conformity determination is required, or develop its own analysis in order to make its conformity determination.

SECTION 148. NR 489.08(intro.), (3)(a) and (b), (4)(a) and (b), (5)(b) and (d)1.b. are amended to read:

NR 489.08 CRITERIA FOR DETERMINING CONFORMITY OF GENERAL FEDERAL ACTIONS. (intro.) An action required under s. NR 489.03 to have a conformity determination for a specific pollutant will be determined to conform to the applicable implementation plan if, for each pollutant that exceeds the rates in s. NR 489.03(2), or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of ~~sub. (7)~~ s. NR 489.085(2), and meets any of the following requirements:

(3)(a) The requirements specified in ~~sub. (6)~~ s. NR 489.085(1), based on areawide air quality modeling analysis and local air quality modeling analysis; or

(b) The requirements specified in sub. (5) and, for local air quality modeling analysis, the requirements of ~~sub. (6)~~ s. NR 489.085(1);

(4)(a) Where the department determines, in accordance with ss. NR 489.05 and 489.06 and consistent with the applicable implementation plan, that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meets the requirements specified in ~~sub. (6)~~ s. NR 489.085(1), based on local air quality modeling analysis; or

(b) Where the department determines, in accordance with ss. NR 489.05 and 489.06 and consistent with the applicable implementation plan, that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect

...actions from the action meets the requirements specified in sub. (6) or NR 489.085(1) based on

areawide modeling, or meets the requirements of sub. (5); or

(5)(b) The action, or portion thereof, as determined by the MPO, is specifically included in a current transportation plan and transportation improvement program which has been found to conform to the applicable implementation plan under 40 CFR part 51, subpart T or part 93, subpart A as in effect on ~~October 1, 1995.~~ July 1, 1998;

(d)1.b. The calendar year that is the basis for the classification or, where the classification is based on multiple years, the year that is most representative in terms of the level of activity, if a classification is promulgated in 40 CFR part 81 as in effect on ~~October 1, 1995~~ July 1, 1998; or

SECTION 149. NR 489.08(6) to (8) are renumbered 485.085(1) to (3) and 489.085(2) and (3), as

renumbered, are amended to read:

SECTION 152. NR 489.11 is amended to read:

NR 489.11 SAVINGS PROVISION. The federal conformity regulations under 40 CFR part 51 subpart W and part 93 as in effect on ~~October 1, 1995~~ July 1, 1998, in addition to any existing applicable state requirements, establish the conformity criteria and procedures necessary to meet the

SECTION 154. NR 490.03(1) is amended to read:

NR 490.03(1) If the department receives a request for a hearing under s. NR 490.025 and the department determines that there is a significant public interest in holding a hearing, the department

may hold a public hearing and, if a hearing is held, shall close the record of the public hearing within 70 days after the deadline for requesting a hearing. Not less than 10 days, and not less than 30 days for hearings related to issuance, renewal, revision, suspension or revocation of operation permits for part 70 sources, prior to the public hearing, the department shall publish a class 1 notice under ch. 985, Stats., announcing the hearing and shall serve a written notice of the hearing on the requestor, the permit applicant or permit holder and persons listed under s. 144.392 285.61(5)(a)2. to 5., Stats. The department may serve the notice of hearing by personal delivery or by mailing a copy of the notice to the last known post office address of the person to be served in a sealed envelope with first class postage prepaid.

SECTION 155. NR 492.01(1) and (2) are amended to read:

NR 492.01(1) **APPLICABILITY.** This chapter applies to the department when acting on requests for a permit or departmental approval submitted by any person pursuant to ss. 285.30, 285.31, 285.39 and 285.55 to 285.87, Stats.

(2) **PURPOSE.** This chapter is adopted under ss. 227.116 and 285.11, Stats., to establish a time schedule for the department to follow when acting on requests for a permit or departmental approval submitted pursuant to ss. 285.30, 285.31, 285.39 and 285.55 to 285.87, Stats.

SECTION 156. NR 493.01(2) Note is created to read:

NR 493.01(2) Note: This chapter generally follows the federal guidance contained in 40 CFR part 51, Appendix L.

**SECTION 157. TERMINOLOGY CHANGES.**

Wherever the term "s. NR 489.08" appears in the following sections of the code, the term "ss. NR 489.08 and 489.085" is substituted: NR 489.05(1) and (2) and 489.06(1) to (4).

Wherever the term "Are(a)1." appears in the following sections of the code, the term "Area." is substituted: NR 493 Table 2 (1)(b)3. and (c)3. and Table 3 (1)(a)2., (b)2. and (c)2.



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The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on April 28, 1999.

The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
George E. Meyer, Secretary

(SEAL)

The foregoing was approved by the Board of Directors on April 28, 1964.

The rate shall take effect on the day of the month next following the date of the Board's resolution.

Respectfully,  
Secretary

DEPARTMENT OF THE ARMY  
WASHINGTON, D. C.

By the Secretary

(S)